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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,312	01/16/2002	Shinji Nagashima	218123US3	2671

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1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

LAZOR, MICHELLE A

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/046,312	<b>Applicant(s)</b> NAGASHIMA, SHINJI	
	<b>Examiner</b> Michelle A Lazor	<b>Art Unit</b> 1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Claims 1-7 in document received 26 August 2003 is acknowledged.

### ***Drawings***

2. Two sets of drawings were included in the Application. The first set of drawings included eleven figures, while the other set of drawings included seven figures. For the purposes of examination, since seven figures is consistent with the Brief Description in the Specification, the set of seven figures are assumed to be the correct ones.
3. Figure 7 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 11209876 (with English Equivalent, U.S. Patent No. 6235112).

JP 11209876 discloses a film treatment apparatus which comprises a chamber (1'); a first mass flow controller (11'') for supplying said chamber with said first gas; and a second mass flow

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controller (11') for supplying said chamber with said second gas (English Equivalent: Figure 3; column 5, line 13 – column 6, line 37). Thus JP 11209876 discloses all the limitations of Claim 1, and anticipates the claimed invention.

6. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Blackwood et al. (U.S. Patent No. 4749440).

Blackwood et al. disclose a film treatment apparatus which comprises a chamber (10); a first mass flow controller (32) for supplying said chamber with said first gas; a second mass flow controller (33) for supplying said chamber with said second gas; and a mixer (36) for mixing said first and second gases, wherein the mixed gas from said mixer is supplied into said chamber (Figure 1; column 9, lines 30 – 64). Thus Blackwood et al. disclose all the limitations of Claims 1 and 6, and anticipate the claimed invention.

### *Claim Rejections - 35 USC § 103*

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11209876 as applied in Claim 1 above, in view of Lin (U.S. Patent No. 6221160).

JP 11209876 discloses all the limitations of Claim 1 including exhaust means (23) (English Equivalent: column 4, lines 36 – 57), but does not specifically disclose a chamber pressure control mechanism for detecting a pressure in said chamber, operating said exhaust means and controlling

said pressure. However, Lin discloses a chamber pressure control mechanism for detecting a pressure in a chamber, operating an exhaust means and controlling said pressure (column 7, lines 3 – 19). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a pressure control mechanism which controls pressure in a chamber via exhaust means to achieve a more accurate process control while maintaining a substantially constant humidity level in the process chamber (Abstract).

9. Claims 3 – 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11209876 as applied in Claim 1 above, in view of Lin and Gurer et al. (U.S. Patent No. 6027760).

JP 11209876 discloses all the limitations of Claim 1 including exhaust means (23) (English Equivalent: column 4, lines 36 – 57); a coating unit (7) (English Equivalent: column 4, lines 37 – 57) and said second mass flow control controls said second gas (English Equivalent: column 6, lines 19- 37), but does not disclose a pressure sensor; a chamber pressure control mechanism for operating said exhaust means on the basis of a measurement signal from a pressure sensor and for controlling said pressure by controlling a throttle of an exhaust valve of said exhaust mechanism on the basis of a measurement signal from said pressure sensor; a concentration sensor; and a gas composition control mechanism for controlling said first or second mass flow controller on the basis of a measurement signal from said concentration sensor thereby keeping constant said concentration of said first gas. However, Lin discloses a pressure sensor and a chamber pressure control mechanism for detecting a pressure in a chamber, operating and controlling a throttle of an exhaust valve of said exhaust mechanism on the basis of a measurement signal from said pressure sensor (column 7, lines 3 – 19); and Gurer et al. disclose a concentration sensor; and a gas composition control mechanism for controlling said first or second mass flow controller on the basis of a measurement signal from said concentration sensor thereby keeping constant said concentration of

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said first gas (Abstract). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a pressure control mechanism which controls pressure in a chamber via a throttle to achieve a more accurate process control while maintaining a substantially constant humidity level in the process chamber (Lin: Abstract); and it would have been obvious to include a concentration sensor and a gas composition control mechanism to accurately control the solvent vapor concentration into said chamber.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle A Lazor whose telephone number is 703-305-7976. The examiner can normally be reached on Mon - Thurs 6:30 - 4:00, Fridays 6:30 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 703-308-3853. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

  
MAL

  
RICHARD CRISPINO  
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